

SPOKANE COUNTY HEALTH DISTRICT
Inter-Office Communication

DATE: June 7, 1983

Dr. Mary Q. Luther

FROM: *lc* Larry Chadzynski

SUBJECT:

MEETING: William Mullen, Chief, Drinking Water Programs Branch, EPA
Dan Sander, local DSHS
Larry Chadzynski, SCHD

DATE AND TIME: Thursday, June 2, 1983, 1:30 PM

PLACE: Local DSHS office.

PURPOSE: To discuss (b)(6) well (an aquifer monitoring well point) in regards to increasing volatile organic levels.

DISCUSSION: Mr. Mullen presented us with a copy of a table of Detected Purgeable Halocarbon Data for Selected Wells (CAS #SYSTEM), copy attached.

The (b)(6) well has been included in aquifer monitoring dating back to the "208" Study. The data discussed reflect sampling periods from September 15, 1980, to January 26, 1983.

The following organics show gradually increasing values: TETRACHLOROETHYLENE; TRICHLOROETHYLENE: 1,2-TRANS DICHLOROETHYLENE; and 1,2-DICHLOROETHANE. They are of major concern as contaminants in that they are carcinogenic. EPA critical levels for those organics are shown in the following table.

CRITICAL LEVELS OF SPECIFIC ORGANICS

ORGANIC	CRITICAL LEVEL	JEFFERS' WELL (RANGE)
tetrachloroethylene		
Toxicity	20 ugs/l	5.6 - 23 ugs/l
Carcinogenicity	3 ugs/l	
trichloroethylene		
Toxicity	7 ugs/l	
Carcinogenicity	3 ugs/l	1.0 M - 14.0 ugs/l
1,2-Transdichloroethylene		
Toxicity	*270 ugs	
Carcinogenicity	No data	148 - 385 ugs/l
1,2-Dichloroethane		
Toxicity		
Carcinogenicity	1 ugs/l	7.2 - 17.0 ugs/l

*30-60 day short-term limit

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Clearly the organic levels in the (b)(6) well exceed the critical levels and are cause of concern because of the risk to health of this family ingesting this water. The risk is great if they continue to drink the water.

In addition, new information on 1,1,1-TCE recently evaluated by EPA shows that it is also carcinogenic in animals at lower levels - 16-20 mg/l. 1,1,1-TCE was earlier included only for its chemical toxicity by EPA. Now, this new information on animal carcinogenicity adds a new degree of concern for 1,1,1-TCE.

The (b)(6) well is located very near to and north of a landfill (Greenacres Landfill), formerly owned and operated by the County. After closure of the landfill (800 acres?), the property was sold to (b)(6) and is now owned by the Highlands Development Group.

The increasing values of organic contaminants in the (b)(6) well raises the question as to what is the source of these organic contaminants. Is it leachate from the former Greenacres Landfill or is it some other source on or near the (b)(6) premises? The (b)(6) well draws its water from the Spokane aquifer.

(b)(6) owns two parcels of land totalling 11.23 acres in Section 16, south of Kenney Road and west of Liberty Lake Road.

There was consensus that the (b)(6) should again be advised to not use the water from their well for drinking or cooking purposes.

PLAN:

1. Visit (b)(6) and apprise them of the organic contaminant problem and follow verbal presentation with a letter.
2. Suggest alternative water supply.
3. Investigate source of organic contaminants.
 - A. SCHD-EHD will identify other wells in the area and submit the locations to EPA for review and comment prior to implementing a sampling project.
 - B. EPA will analyze H₂O supplies for organics.
 - C. DSHS will analyze H₂O sample for selected inorganics.
 - D. Investigate County or DOE plans to address the Greenacres Landfill (as possible source of organic contaminants), and depending on the outcome of the investigation, EPA may add the site to the list of potential superfund sites.
 - E. DSHS and SCHD EHD will generate list of wells logs for sampling project (it will be important to try to determine where pumps set in wells). We are considering looking at wells located in sections 8, 9, 16, and 17 at this time.

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F. Reconvene and discuss findings of preliminary investigation.

c: Commissioners Peterson
Shepard
McBride
William Mullen, EPA
Dan Sander, DSHS
Mr. Kroll, SCHD-EHD
Mr. Way, "
Mr. Anicetti, "
Mr. Byram, "

TABLE D-1. THE SUSTAINABLE PRODUCTION DATA FOR FLOTTING WELLS (CASS SYSTEM)

DATE	TIME	ETHYLENE UG/L	ETHYLENE UG/L	ETHYLENE UG/L	ETHYLENE UG/L	ETHYLENE UG/L	ETHYLENE UG/L	ETHYLENE UG/L	ETHYLENE UG/L
01/01/26	0715	1.2	5.1	5.6					
01/01/26	0715		14.0	2.4				14.0	
01/01/27	1200	2.1	83.0	14.0					
01/01/27		6.5	18.0	9.4					
01/01/27	1200		18.0	4.4	151.0			7.2	
01/01/27	1205		14.0	4.2	148.0	1.7		14.0	
02/01/27	0704	4.0	23.0	12.0	225.0	3.0		13.0	1.4
02/01/27	0705	4.4	24.0	12.0	225.0	2.8		12.0	1.3
02/01/26	0715		22.0	6.8	245.0	1.4		15.0	1.0
02/01/26	0716		23.0	8.0	258.0	1.5		16.0	1.0